Depot Total Asset Visibility System Support

Technical Proposal
Solicitation No. W911KF-06-Q-0195

24 September 2006

To:

Rita B. Dingler
DOC Anniston Army Depot
Directorate of Contracting
7 Frankford Avenue
Anniston, AL 36201-4199
(256)235-6027

By:

Sheryle Krashevski
Director – Corporate Management
Portal Dynamics, Inc.
5845 Richmond Highway, Suite 600
Alexandria, Virginia 22303
703-778-3500

Portal Dynamics Proposal PD-2006-38

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A. EXECUTIVE SUMMARY/TRANSMITTAL LETTER

Portal Dynamics, Inc. (Portal Dynamics) is pleased to respond to Anniston Army Depot's (ANAD) requirement for Depot Total Asset Visibility System (DTAVS) Support. As the company who conceived, built, and supported DTAVS from inception through the end of May 2006, Portal Dynamics is intimately familiar with DTAVS and its components like the interface between DTAVS and HighJump. More importantly, we are knowledgeable of and sensitive to the challenges of the ever-increasing workload confronting ANAD. We have demonstrated our commitment to helping ANAD succeed through the initial development and deployment of DTAVS and we are committed to helping ANAD address its business challenges, not just its Information Technology (IT) challenges.

Portal Dynamics initiated discussions with ANAD in February 2005 regarding the need to answer two critical questions challenging production - (1) what [reclaim] parts do we have?; and (2) where are they located? Timely answers to these questions have the potential to reduce production costs, increase throughput, and reduce cycle time. We proposed a solution that could answer these questions and provide tremendous insight into the movement of material within ANAD (see Figure 1 below). This solution is now called DTAVS. Contractually, we started work on June 13, 2005 and implemented the Visual Planner System (VPS) on September 30, 2005 for the M1 family of vehicles (FOV). Subsequently, all remaining FOVs were migrated to the Visual Planner System. We were able to achieve this aggressive schedule by using a rapid application development (RAD) approach.

Many of the Portal Dynamics' employees who conceived, designed, and supported DTAVS are available to return or assist ANAD under the proposed contract. Our on-site team will be led by Sheree Harness who led all of our prior DTAVS work. Sheree is familiar with the application, the people, and the processes that DTAVS was designed to support. Michael Martin, Shelena Childress, Taylor McDonald, Scott McAuliffe, Paul Le, and Keith Tayloe, all DTAVS veterans, are available to support this proposed effort as well. Additionally, Portal Dynamics has teamed with HL Group, Inc. (formerly iLevy) to address the Visual Planner System to HighJump interface.

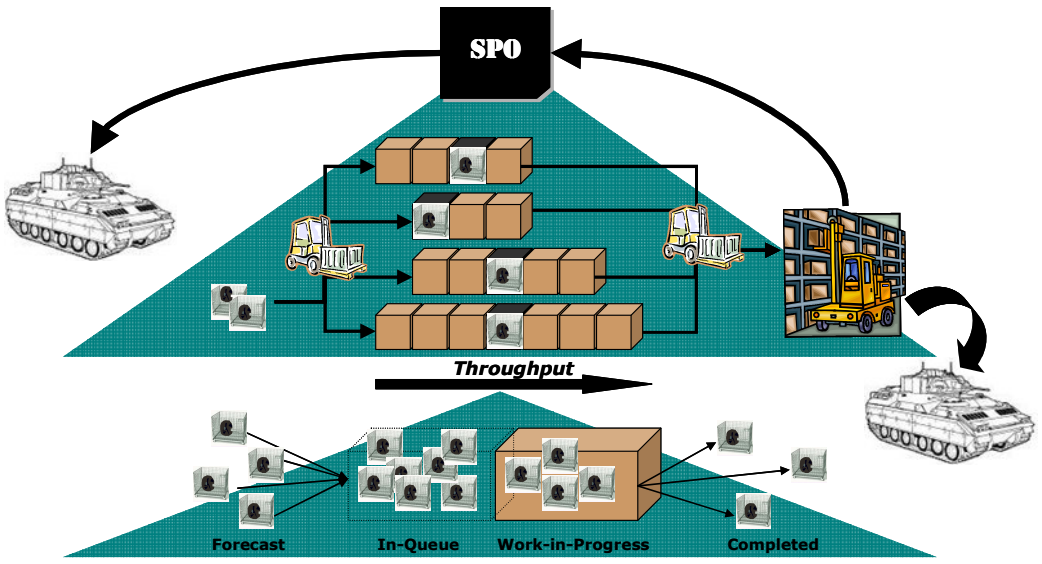

Figure 1. DTAVS provides Total Visibility! By Program, By Container, By Part, By Process

Portal Dynamics is a Microsoft Certified Gold Partner. To become a Microsoft Certified Gold Partner, Portal Dynamics had to demonstrate a deep understanding of Microsoft's many technologies such as Visual Studio 2005, C#, Visual Basic, SQL Server 2000/2006, T-SQL, IIS web server, and the full breadth of Windows Server operating systems. We demonstrated this deep understanding through successful solution delivery (verified by clients) and the individual certification of employees. Consequently, Portal Dynamics offers ANAD a team experienced with DTAVS and backstopped by a corporate pool of experienced, certified individuals. We have also teamed with HL Group, Inc. (formerly iLevy) to provide support for the Visual Planner to HighJump interface.

The Portal Dynamics past performance referenced in this proposal reflects that we have done this type of work before and have experience supporting similar environments.

Portal Dynamics looks forward to the opportunity to continue to support ANAD.

A. CORPORATE EXPERIENCE

A.1 Experience with DTAVS

Portal Dynamics, teamed with ANAD, was responsible for architecting the DTAVS business solution. After gaining an understanding of ANAD's business requirements as they relate to material management in the spring of 2005, Portal Dynamics developed a concept of operations that addressed the immediate need to track reclaim parts and, more importantly, linked parts to the bigger management picture by automating the Shop Project Orders (SPOs). This association gives ANAD the capability to view production activity at the work center level. This concept of operations was married with the Intermec/HL Group, Inc. (formerly iLevy) implementation of HighJump software and Intermec hand-held computers and printers per ANAD's Automated Identification Technology (AIT) initiative to create the Depot Total Asset Visibility System (DTAVS).

The distinct DTAVS' components include the Visual Planner System, HighJump, Intermec printers, and Intermec hand-held computers. The Visual Planner System, designed by Portal Dynamics based on input from many ANAD focus groups, provides overall reclaim material management capabilities. Common values such as routes, parts, processes, and buildings are maintained in the VPS. These common values provide a consistent and common means of communication that did not exist prior to deployment of VPS and are still creating some of the data management issues highlighted in the Request for Proposal (RFP). The common values are needed to create electronic Shop Project Orders (SPO). SPOs authorize work and provide directions for shop personnel. The SPO is the logical link between the work and the funding authorization. Automation of the SPOs gives ANAD the potential to report work-in-progress in near real-time via a management dashboard or portal. Once the SPO and any subordinate SPOs have been created, material management against that SPO can occur.

At the point of disassembly, the mechanics remove parts from an inducted vehicle and place the parts in a physical basket. Within VPS, these parts are captured to create a virtual basket and to link the basket to a standard route for overhaul. Once the linkage is created, a Mylar bar-coded tag is printed from VPS and affixed to the physical basket. At this point, basket information in VPS is sent to interface tables triggering a process in HighJump of validation before creating the same basket information in its own database tables. Baskets are tracked through their routes, on a building-by-building basis, via the hand-held computers deployed at the shop floor. Basket updates are sent from HighJump to VPS when a tag scan occurs. Currently, only [building] Out-scans and parts adjustments (shortage or overage) are feeding from HighJump to VPS. Once a basket has successfully completed its route, it is closed out. Currently, location information is as good as the last scan which is currently only performed at an "Out" building location. Future features include in/out scanning at a work center level providing a greater level of granularity.

Many of the Portal Dynamics' employees who conceived of, designed, and supported DTAVS are available to return or assist ANAD under the proposed contract. Our on-site team will be led by Sheree Harness who led all of our prior DTAVS work. Sheree is familiar with the application, the people, and the processes that DTAVS was designed to support. Michael Martin, Shelena Childress, Taylor McDonald, Scott McAuliffe, Paul Le, and Keith Tayloe, all DTAVS veterans, are available to support this proposed effort as well. Additionally, Portal Dynamics has teamed with HL Group, Inc. (formerly iLevy) to address the Visual Planner System to HighJump interface.

The proposed Portal Dynamics team of skilled professionals possesses the in-depth business and technical knowledge and skills to successfully maintain and sustain DTAVS with minimal guidance, and without transitional spin-up or training requirement. This team will include personnel who possess prior DTAVS work experience and who will augment DOIM

(Directorate of Information Management) capabilities. The Portal Dynamics team will maintain and sustain DTAVS by providing Help Desk end-user support, reporting and analysis capability, and system instrumentation and augmentation. This team will perform DTAVS maintenance and support activities onsite during ANAD business hours, and by telephone or VPN remote connection after hours to support this requirement. Portal Dynamics will establish a system production support plan to define and communicate after-hours support procedures.

A.2 Experience with Visual Studio 2005, T-SQL, C#, and other operating systems and servers identified in the Statement of Work

From inception, Portal Dynamics worked closely with the ANAD DOIM, specifically Don Molleur and Randy Pugh, to identify, architect, and support the DTAVS development, test, and production environment that includes Visual Studio 2005, C#, Visual Basic, SQL Server 200/2006, T-SQL, IIS web server, and the full breadth of Windows Server operating systems.

Portal Dynamics is a Microsoft Certified Gold Partner. To become a Microsoft Certified Gold Partner, Portal Dynamics has to continuously demonstrate a deep understanding of Microsoft's many technologies such as Visual Studio 2005, C#, Visual Basic, SQL Server 2000/2006, T-SQL, IIS web server, and the full breadth of Windows Server operating systems. We demonstrate this deep understanding through successful solution delivery (verified by clients) and the individual certification of employees. Consequently, Portal Dynamics offers ANAD a team experienced with DTAVS and backstopped by a corporate pool of experienced, certified individuals. In total, Portal Dynamics' employees hold more than 36 Microsoft technical certifications. The extensive technical expertise of Portal Dynamics employees is demonstrated in Microsoft certifications that include:

- Microsoft Certified Solution Developer (MCSD) for Microsoft .NET
- Microsoft Certified .Net Professional (MCNPS)
- Microsoft Certified Database Administrator (MCDBA)
- Microsoft Certified Systems Administrator (MCSA)
- Microsoft Certified Professional in Systems Integration (MCPSI)
- Microsoft Certified Technology Specialist (MCTS)
- Microsoft Certified Systems Engineer (MCSE)
- Microsoft Certified Professional: Site Building (MCP+SB)
- Microsoft Certified Product Specialist (MCPS)

These highly-skilled employees use current technologies to design, develop, and deploy systems that address client business problems with superior business solutions. These technologies include, but are not limited to, Microsoft Visual Studio 2005 Integrated Development Environment (IDE), C# and VB (Visual Basic) programming languages, Microsoft SQL 2000/2005 Server and Transact-SQL programming environments, Microsoft IIS web server, Visual SourceSafe, and Windows 2003 operating system platforms. Portal Dynamics' technical staff also stays abreast of new and emerging technologies through active participation in continuing education and certification, attendance at conferences, development roundtable presentations and discussion forums, and research and development efforts. Portal Dynamics has employed current technologies to develop numerous business solutions that support the Army industrial complex. Portal Dynamics fully understands the requirement for the depots to continue to increase throughput and to do "more with less". Examples of Portal Dynamics solutions that demonstrate a strong understanding of this Army depot challenge include:

- Anniston Army Depot (ANAD) DTAVS – Provides a material management solution that generates total asset visibility of reclaimed parts from induction to remanufacture.
- CH-47 Component Recapitalization Program – Provides critical program information to support and manage the CH-47 Component Recapitalization Life-Cycle through a web-based IDE for Corpus Christi Army Depot (CCAD).
- Sierra Army Depot (SIAD) – Provides roll-up reporting capabilities to present summarized depot activities to management for analysis and decision making.
- PEO GCS e-Business Portal/Asset Management System – Provides the ability to record and send Bradley Fighting Vehicle (BFV) Field Service Representative (FSR) report data electronically in real time using pocket PCs, giving Red River Army Depot (RRAD) valuable insight into upcoming maintenance requirements.

In addition to extensive technical and depot expertise, Portal Dynamics' employees possess significant process improvement expertise including Lean Process/Six Sigma Black Belt certification and experience.

B. TECHNICAL APPROACH

Portal Dynamics will use Government-furnished equipment (GFE) and Government-furnished information (GFI) to provide maintenance and sustainment support for the Depot Total Asset Visibility System (DTAVS), DTAVS user Help Desk support, and DTAVS report generation and system instrumentation/augmentation. Portal Dynamics will perform contract work onsite from 0700-1700 Monday through Friday, and provide on-call assistance during all other times. On-call assistance will be provided via pager and our local team backstopped by other corporate personnel as required.

Figure 2 below depicts our proposed staffing approach and levels. Our initial proposed team will consist of five individuals – a Solution Delivery Manager, three Application Developers, and a Database/System Administrator. The Solution Delivery Manager will provide part-time leadership, planning, and oversight to the Portal Dynamics team. All other proposed team members will provide full-time support to the DTAVS effort as outlined in this proposal. The Solution Delivery Manager will work to verify, create, or update processes for configuration management, communication, Help Desk management, and customer support during the first six months of the performance period. Subsequently, day-to-day management of the Portal Dynamics' team will be transitioned to one of the remaining members of the team.

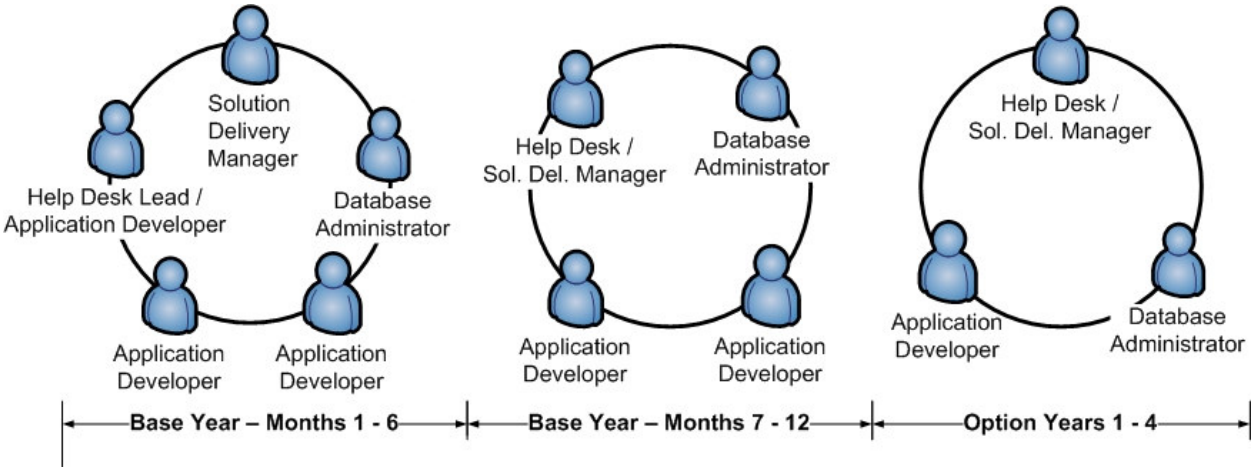

Figure 2. The Portal Dynamics DTAVS Support team balances business need with budget.

Our proposed technical staffing level of four full-time equivalents (FTEs) during the first year is based on our understanding that three FTEs are required to maintain and support DTAVS daily to provide onsite coverage from 0700-1700. The fourth FTE is proposed to support changes to DTAVS highlighted in paragraph 5 of the RFP. This level of staffing carefully balances need versus budget and requires continuous monitoring and management of resource utilization to assure that effort deemed most important for ANAD is being accomplished. As shown above, staffing in Options Years 1 through 4 is reduced to three onsite FTEs with management oversight.

The key to providing the appropriate direction and oversight to the DTAVS Support team is an effective Change Control Board (CCB) to review, prioritize, and approve/disapprove requested changes. A recommended change management process will include the following steps:

- Formal submission of changes on a Change Management Form (CMF).
- Priority assignment based on urgency and the impact on infrastructure or users. Priority assignment will determine the speed at which the change will be addressed and the route it should take for authorization.
- Review by a Change Control Board (CCB) for approval/disapproval.
- Review at key interim milestones to ensure successful deployment planning occurs.
- Coordination for release (Release Management) and deployment into the production environment.
- Post-implementation review to determine if the change has achieved the goals that were initially established for it and whether to keep it or back it out of the system.

Portal Dynamics closely monitors the efforts of all project teams. Internally, we conduct monthly program reviews using Earned-Value Management tools to assess our performance. Rich McAdams, the Redstone Arsenal Practice Manager, has oversight responsibility for the ANAD DTAVS effort and will conduct the monthly program reviews with the Portal Dynamics team and will meet with the ANAD staff at the same time. Frank Dombrowski, Director of Professional Services, will conduct quarterly client satisfaction reviews to keep Portal Dynamics' efforts in synch with ANAD's expectations. ANAD is encouraged to contact Rich at (256)880-9195, Frank at (703)778-3510, or Keith Tayloe, President, at (703)778-3505 anytime there is a question or concern regarding Portal Dynamics' efforts or its people.

B.1 Provide Data Management

The Portal Dynamics DTAVS Support team will support this requirement. An Application Developer will be responsible for re-engineering or converting SQL data and associated database structures to resolve system data modification requirements. The Developer will have an in-depth knowledge of ANAD's business processes and associated business rules, as well as the DTAVS database structures, including table and field definitions and relationships. The Developer will employ this knowledge, coupled with Structured Query Language (SQL) skills to develop and execute SQL statements to query and maintain system data such as Routes, Processes, and Shop Project Orders (SPOs).

The Application Developer will review and validate all new releases of DTAVS software, and serve as a liaison to the DOIM to coordinate deployment of new releases. Portal Dynamics will utilize a development environment to develop code changes and conduct unit and system tests, and a staging environment to "stage" applications or database enhancements and facilitate User Acceptance Tests (UAT) prior to migration to the production environment. To mitigate risks to the production environment, Portal Dynamics will design and execute unit and system tests for all application and database enhancements. Additionally, Portal

Dynamics will coordinate User Acceptance Testing activities with ANAD personnel to ensure all DTAVS enhancements are functioning as desired.

The Application Developer will review processes that resulted in unwanted data and eliminate the cause(s) where possible. The Developer will provide notification to the user(s) about the status of data removal and the cause that resulted in unwanted data. Where feasible, the Application Developer will automate the identification of unwanted data based on ANAD defined criteria.

Portal Dynamics will also provide necessary support services associated with application and database enhancements. We will produce Release Notes documentation and update existing system documentation such as the User Guide. We will also conduct end-user training sessions, if applicable.

B.2 Provide DTAVS Help Desk Support

The Portal Dynamics DTAVS Support team will support this requirement. An Application Developer will monitor the DTAVS Help Desk application module to identify, research, resolve, and close Level I and Level II reported problems. The Developer will possess an in-depth knowledge of DTAVS to resolve Level I user support requests. The Developer will possess the technical skills required to review system errors and application code to resolve Level II user support requests. The Developer will record all necessary information associated with problem resolution on Help Desk tickets; and will notify the user when additional information is required. We will create a weekly Help Desk Log/Report on all open and closed Help Desk tickets. ANAD personnel will be notified of problems and resolutions that can be addressed through user training or notification to proactively prevent or minimize similar future problems.

B.3 System Instrumentation/Augmentation/Reporting Capabilities

B.3.1 Provide Shortage lists (Variance Reports).

The Portal Dynamics DTAVS Support team will support this requirement. We will design, develop and deploy a Parts Shortage (Variance) Report. The report will list all part shortages that occur when a basket is submitted. The report will be produced based on WorkStation (kitting) definitions included on the Shop Project Order and actual parts/quantities recorded by a Material Expeditor during the DTAVS Basket Creation/ Submission processes. This DTAVS report will result in significant improvements in ANAD work center production by eliminating unnecessary manpower that is currently being expended to locate required parts.

B.3.2 Provide In-Scans. (Assets moving into a work area/buildings)

The Portal Dynamics DTAVS Support team will support this requirement. We will review and modify system code to accept data transmitted by hand-held computers at designated "In" work area/building locations. The availability of basket scan data that is transmitted from the hand-held computers to the Visual Planner System will provide the basis for cycle time and throughput analysis. This analysis will be made possible through the use of visual cues, tools, reports and dashboard/scorecard views. Analysis of cycle time and building throughput information will afford ANAD with the ability to improve production planning processes.

B.3.3 Provide improvements for VPS interface and navigation.

The Portal Dynamics DTAVS Support team will support this requirement. The success of any information technology solution is weighed heavily by end-user adoption through user-friendly design considerations. We will conduct Requirements Analysis (RA) activities to

identify and document requirements for modifications to the graphical user interface (GUI) and system navigation. Recommended changes uncovered during the analysis process will be presented to ANAD DOIM personnel for review and approval. The Application Developers will use the approved requirements to affect changes in the Visual Planner System through code modification, testing and deployment into staging and production environments. A rapid application development approach will be employed to quickly and thoroughly examine, understand and meet user requirements. The Database/System Administrator will work hand-in-hand with the Application Developers to review and modify Visual Planner System code to continue to improve system performance. The Database/System Administrator will convert existing extensive queries into stored procedures, and using C#.NET 2005 and ADO.NET 2.0, will test stored procedures and replace the queries in the application code with the stored procedure calls.

B.3.4 PROVIDE AIT/HL INTERFACE.

Portal Dynamics architected, developed and maintained the initial DTAVS "side" of the AIT/HL interface. Our personnel fully understand the requirements for this interface. Portal Dynamics also understands the current interface design improvement opportunities that will afford a reduction in interface data support requirements. To best support the full functioning of both the DTAVS and HighJump/AIT "sides" of this interface, Portal Dynamics has included HL Group, Inc., who co-developed the initial interface with Portal Dynamics, as a subcontractor. The Portal Dynamics on-site team will work closely with the HL Group to improve this interface.

B.3.5 PROVIDE EXPORT AND PRINT TOOLS.

The Portal Dynamics DTAVS Support team will support this requirement. We will conduct Requirements Analysis activities to identify and document requirements for data extraction, export and print. These features will be tailored to accommodate user role or Value Stream requirements. Recommendations uncovered during the analysis process will be presented to ANAD personnel for review and approval. The Application Developers will use the approved requirements to affect changes in the Visual Planner System through code modification, testing and deployment into staging and production environments. We will use report development tools such as Microsoft SQL Reporting Services to export data in desired formats (Microsoft Excel, PDF, XML, TIFF, CSV, etc.). Microsoft SQL Reporting Services 2005 also includes an ad hoc report generation tool that allows users to create custom reports without any knowledge of SQL language or the underlying database structure. We will also use report development tools to provide report data for print, e-mail and online review. If applicable, report data will also be presented graphically in bar chart, pie chart or grid formats.

B.3.6 SUPPORT AND IMPLEMENT USER REQUESTS FOR NAVIGATION IMPROVEMENTS AND FILE EXPORT CAPABILITIES.

As previously described in sections B.3.3 and B.3.5, the Portal Dynamics DTAVS Support team will support this requirement. Portal Dynamics will work to continuously improve application navigation based on user requests and help desk tickets. Additionally, we will work to understand and support the export and print tools requirements consistent with an overall data extraction and reporting approach.

B.3.7 PROVIDE VPS EMBEDDED REPORTING CAPABILITIES.

The Portal Dynamics DTAVS Support team will support this requirement. We recommend developing an overall data extraction and reporting approach that maximizes the potential of DTAVS. After we concluded our contract commitments at the end of May of this year, Portal Dynamics continued to invest in developing DTAVS reporting capabilities because we

recognized the need and the tremendous benefit. We will provide this capability as it is currently available at no cost to ANAD and use it to rapidly confirm the overall data extraction and reporting requirements. Once the data extraction and reporting requirements are confirmed, the DTAVS Support team will develop reporting functionality and a user-friendly reporting interface that will serve as the Visual Planner System entry point for all report requests.

Michael Broughton

Flat Pallet

Id	Status	Comments	Starting Bldg	Creation Date	Last Modified Date	Cco
40,920	In Process	Broughton 7463,Brian	117	3/11/06 0:46	3/11/06 0:48	X68991
40,919	In Process	Broughton 7463,Brian	117	3/11/06 0:45	3/11/06 0:48	X68991
38,932	In Process	Broughton 7463	117	3/9/06 1:22	3/9/06 1:24	X68991
38,931	In Process	Broughton 7463	117	3/9/06 1:21	3/9/06 1:24	X68991
38,930	In Process	Broughton 7463	117	3/9/06 1:20	3/9/06 1:24	X68991
38,929	In Process	Broughton 7463	117	3/9/06 1:20	3/9/06 1:24	X68991

Basket Total By Basket Type: Flat Pallet 6

Large Basket

Id	Status	Comments	Starting Bldg	Creation Date	Last Modified Date	Cco
39,905	In Process	Broughton 7463,	117	3/10/06 1:37	3/10/06 1:42	X68991
43,383	In Process	Broughton 7463,	117	3/14/06 20:42	3/14/06 20:53	X68991

Basket Total By Basket Type: Large Basket 2

Basket Total By Router: Michael Broughton 8

Figure 3. Existing Reporting Functionality

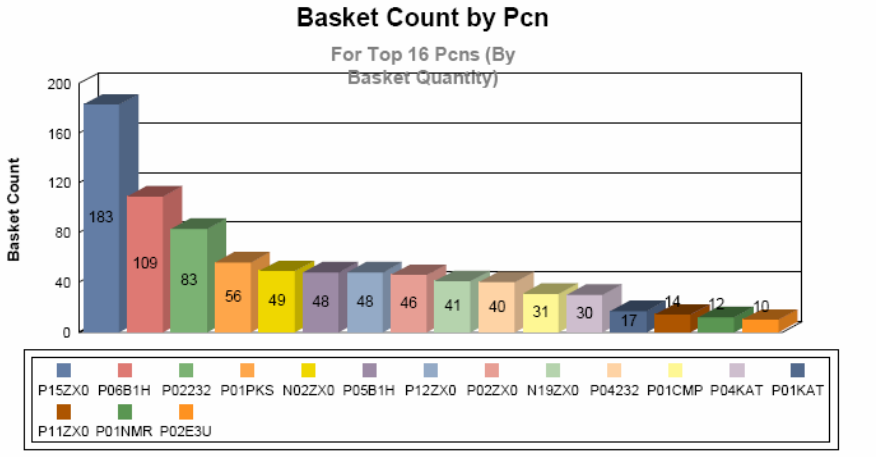

Figure 4. Graphical representations of activity can provide managers tools to quickly determine status.

As applicable, Visual Planner System reports will include online view, data extraction, data export, print and e-mail receipt capabilities. We will use report development tools such as

Microsoft SQL Reporting Services 2005 to export data in desired formats (Microsoft Excel, PDF, XML, TIFF, CSV, etc.). We will also utilize the ad hoc report generation tool within Microsoft SQL Reporting Services 2005 to allow users to create custom reports. Microsoft SQL Reporting Services 2005 does not require any knowledge of SQL language or the underlying database structure. Representative report samples that demonstrate the Portal Dynamics team's expertise in Visual Planner System reporting and analysis design are presented in Figures 3 and 4 above.

We will develop and deploy a Basket/Part Report that will provide flexible reporting results based on PCN, Work Center, Material Expeditor, Workstation Requirement, End Item Code, Routes, Date Ranges and other desired reporting criteria. The team will also develop reports that detail Program, Shop Project Order and End Item information. We will develop reports and/or system alerts to notify the appropriate personnel about overdue items. The availability of these reports/alerts will allow ANAD work centers to proactively identify potential production bottlenecks, conduct necessary activities to locate and retrieve overdue items and plan for appropriate production staffing levels.

Figure 5. PDM^2 is an interactive, full-featured reporting capability designed to provide managers a real-time interactive tool for decision-making.

Figure 5 depicts the enhanced reporting functionality that Portal Dynamics developed to complement basic transaction reporting available in DTAVS. This functionality we call Production Driven Material Management or PDM^2 gives the user the ability to view aggregate data or transaction data interactively to identify trends, status, and potential problems. This functionality was developed using Adobe® Flex™ 2 software.

B.4 System Administrator Support.

The Portal Dynamics DTAVS Support team will support this requirement. We will:

- Create and document the DTAVS system architecture using table layouts.

- Perform various database administration activities including performance tuning, establishing system indexes, and creating system scripts, queries, reports, jobs, stored procedures and triggers.
- Providing troubleshooting assistance in support of hardware, software and network problems that result in DTAVS failure.
- Providing programming and troubleshooting support for patch application and upgrades to operating systems and SQL servers.

We will also implement DTAVS changes required for compliance with Army regulations.

C. PAST PERFORMANCE

C.1 Past Performance Referenced Projects

C.1.1 RELEVANCY OF REFERENCES

The following past performance references demonstrate the expertise of Portal Dynamics in projects having similar levels of size, scope, and complexity.

C.1.2 ANNISTON ARMY DEPOT - DEPOT TOTAL ASSET VISIBILITY SYSTEM (DTAVS)

Project/Contract Name:	**Anniston Army Depot – Depot Total Asset Visibility System (DTAVS) (submitted by Portal Dynamics, Inc.)**		
Name of Contracting Activity:	TACOM - Anniston, Directorate of Contracting, Anniston, AL		
Contract Number:	W911KF-05-D-0007 subcontract #1504 W911KF-06-C-0007 subcontract #1517	**Period of Performance:**	Start: 06/13/2005 End: 05/31/2006
Contract Type:	FFP	[i.e. Firm-Fixed Price, Cost Plus-Award Fee, etc.]	
Total Contract Value:	$1,731,077.00		
Contracting Officer:	Chris Katterheinrich; 256-741-5128; chris.katterheinrich@us.army.mil		
Contract Administrator:	Susan Mason, 256-258-6200, Smason@Tfab-Hsv.com.		
List of Major Subcontractors:	None		

Brief Summary of Work Performed:

The Anniston Army Depot (ANAD) provides maintenance of both heavy- and light-tracked combat vehicles and their components, is designated as the Center of Technical Excellence for the M1 Abrams Tank, and is the candidate depot for the repair of the M60, AVLB, M728 and M88 combat vehicles. In recent years ANAD has seen a rapid rise in customer requirements for combat vehicle repair that has primarily been driven by the war on terrorism.

To meet its significant business and material management challenges, ANAD engaged Portal Dynamics to develop and deploy a material management solution: the Depot Total Asset Visibility System (DTAVS). DTAVS goals are to achieve the capability to identify type, number, and location of parts, and gain total asset visibility of reclaim parts from induction through remanufacture.

Port Dynamics used best practice technologies and methods to plan, design, provide, manage, operate, and maintain DTAVS as the means designed to improve equipment and logistics performance and reduce life cycle costs. Under this contract, Portal Dynamics provided DTAVS maintenance and sustainment support as relevant to all paragraphs of the Statement of Work (SOW).

For the DTAVS solution, the Portal Dynamics team designed and implemented a material management system that integrates multiple business processes into one program. Known as the Visual Planner System, this system is now fully deployed for all ANAD programs. Replacing the ANAD Routing Tool System, the Visual Planner System is a web-enabled application that is accessible to system users through the Microsoft

Project/Contract Name:	Anniston Army Depot – Depot Total Asset Visibility System (DTAVS) (submitted by Portal Dynamics, Inc.)

SharePoint Portal. The Visual Planner System contains modules that provide the capability to:

- Capture work authorization (Program) information
- Plan and initiate work requirements through Shop Project Orders (SPOs)
- At point of induction, capture materials in a basket, then link both at each transfer of control through consumption
- Provide bill of materials (BOM) information to include required quantity
- Link material/baskets to production schedule (future)
- Compare actual work with planned work requirements through Reporting and Query tools
- Initiate, respond to, and track user support requests (Help Desk module)

Relevance to the Paragraphs of the Statement Of Work:

Paragraph 3 - Provide Data Management:

Portal Dynamics' team members reviewed and validated all new releases of DTAVS software, and served as a liaison to the Directorate of Information Management (DOIM) to coordinate their deployment. Portal Dynamics used a development environment to "stage" applications and database enhancements prior to migration to the production environment. To mitigate risks to the production environment, Portal Dynamics also designed and executed unit and system tests for all application and database enhancements and coordinated User Acceptance Testing (UAT) activities with ANAD personnel to ensure all DTAVS enhancements were functioning as desired.

Portal Dynamics also provided onsite support services associated with application and database enhancements, including development and maintenance of Release Notes and User Guide documentation and coordinating, facilitating and conducting end-user training sessions.

Portal Dynamics developed data conversion templates to facilitate the initial load of all system data. Portal Dynamics was also responsible for re-engineering and converting SQL data and associated database structures to resolve system data modification requirements. The Portal Dynamics team designed and executed SQL queries to review and modify system foundation table data such as Bill of Materials (BOMs), Buildings, End Item Codes, Look Ups, Operation Codes, Parts, Processes, Publications, Routes, Security, Users, Work Authorization Codes (WACs), and Work Centers. The team also designed and executed SQL queries and system scripts to identify, review, and eliminate unwanted Visual Planner System data. This data included erroneously submitted baskets, baskets created and not submitted within reasonable timeframes, and inaccurate Shop Project Orders.

Paragraph 4 - Provide DTAVS Help Desk Support:

Portal Dynamics designed the Visual Planner System to include a Help Desk application module that facilitates communication, identification, research, documentation, and resolution of user-reported support requirements. The Visual Planner System also includes online application messaging capabilities that streamlined communications between users and Portal Dynamics Help Desk personnel. Portal Dynamics maintained weekly reports of all Level I and Level II opened, in progress, and resolved problems. Portal Dynamics team members provided Help Desk support, telephone support, and onsite user support. Portal Dynamics team members also provided after-hours support for second- and third-shift users and Level III (production system down) problem resolution on a 24/7 basis. Portal Dynamics conducted formal and informal end-user training sessions, and created and maintained system supporting documentation such as the User Guide and Release Notes.

The Portal Dynamics team designed and executed SQL statements to resolve user data change requests initiated on Help Desk tickets. These system maintenance activities included converting and loading Technical Manuals, creating Part information along with establishing association with Technical Manuals, maintaining system security, and creating and updating system foundation table data.

Paragraph 5 - System Instrumentation/Augmentation/Reporting Capabilities:

The Portal Dynamics Systems Development and Systems Integration team members held ongoing responsibility for Visual Planner System application code design and maintenance to support new Visual Planner System modules, to improve and/or upgrade existing modules and to isolate and repair system bugs or errors. The Portal Dynamics team also included a full-time Database/System Administrator for onsite support of DTAVS. This team member:

- Converted existing extensive queries into stored procedures to continue to improve system performance, and using C#.NET 2005 and ADO.NET 2.0, tested stored procedures and replaced the queries in the application code with the stored procedure calls.
- Ran periodic SQL Profiler Traces to determine if easily includable indexes are necessary.

Project/Contract Name:	Anniston Army Depot – Depot Total Asset Visibility System (DTAVS) (submitted by Portal Dynamics, Inc.)

- Continued to enforce Referential Integrity, to include deleting and consolidating data that hindered such actions.
- Enforced database normalization by modifying stored procedures and any existing queries in the application code that are not in stored procedure form.
- Implemented automatic database maintenance plans that included periodic backups of the database, transaction log backups/exports, reorganizing data, indexing pages, removing unused space from database files, and auto-checking database integrity.
- Worked with the HL Group's technical resources to establish normalization of the interfacing database objects, and established a plan of action.
- Used Crystal Reports to design reports to accommodate the reporting/analytical needs set forth by the Depot's functional representatives.
- Documented database objects that will need to be installed for every future Visual Planner System release and the installation process for database modifications.
- Worked with HL Group, Inc. technical personnel to resolve open errors and issues, including performance issues, Unique Index Key errors, and Process Deadlock errors.

Paragraph 6 - System Administrator Support:

Portal Dynamics provided troubleshooting assistance in support of hardware, software, and network problems that resulted in DTAVS failure. Additionally, Portal Dynamics provided programming and troubleshooting support for patch application and upgrades to operating systems and SQL servers. The Portal Dynamics Database/System Administrator also set up System Performance Counters to create a Visual Planner System base line and continued to monitor/improve server performance.

Problems Encountered and Corrective Actions Taken to Avoid Recurrences:

There have been no significant issues or interruptions in the development, implementation, and support of DTAVS and the Visual Planner System.

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C.1.3 U.S. ARMY PEO - GCS EBUSINESS LCMP

Project/Contract Name:	**U.S. Army Program Executive Office Ground Combat Systems (PEO GCS) eBusiness Life Cycle Management Portal (LCMP) (submitted by Portal Dynamics, Inc.)**		
Name of Contracting Activity:	Defense Information Systems Agency (DISA) Defense Information Technology Contracting Office (DITCO) Scott AFB, Illinois		
Contract Number:	HC1013-05-F-2374	**Period of Performance:**	Start: 06/22/05 End: 07/31/06
Contract Type:	Firm Fixed Price	[i.e. Firm-Fixed Price, Cost Plus-Award Fee, etc.]	
Total Contract Value:	$2,683,122.11		
Contracting Officer:	Don Papke; 586-939-9802, ext. 104; Donald.Papke@us.army.mil		
Contract Administrator:	Beverly Jones; 618-229-9689; beverly.jones@disa.mil		
List of Major Subcontractors:	None		

Brief Summary of Work Performed:

The overall objective of this contract is to expand the PEO GCS eBusiness Life Cycle Management Portal (LCMP) user base and enhance Portal capabilities, to include Product Lifecycle Support capability for the PEO, the reporting PMOs, and Army Acquisition Domain partners.

Under this contract, Portal Dynamics, Inc. is meeting the following objectives:

- Target the functional areas of weapons program management, from pre-acquisition and contract management to logistics management, earned value analysis, sustainment, and support.
- Provide a common database and operating environment for functional stakeholders, coupled with a common, dynamic reference set of information that all stakeholders can reference for collaborative decision-making and integrated weapons program management and control.
- Expand the user base to all PEO Program Management offices and provide enterprise-wide weapon system life-cycle management support tools to all Portal users. These tools include: portfolio-managed document management system; collaboration tools; program management; configuration, logistics, and engineering data; and contract and financial management tools.
- Integrate the LCMP with selected current and future Army information technology legacy systems, e.g., GCSS and review and selection of best of class commercial Enterprise capabilities.

Relevance to the Paragraphs of the Statement Of Work:

Paragraph 3 - Provide Data Management:

Portal Dynamics uses best practice technologies and methods to plan, design, provide, manage, operate, and maintain the PEO GCS eBusiness Life Cycle Management Portal. This system directly supports all GCS Logistics Information requirements, with the goal to improve equipment and logistics performance and reduce life cycle costs.

Portal Dynamics recently expanded the LCMP to provide a Life Cycle Management Command (LCMC) electronic Document Management System. This system describes and supports the end-to-end process steps for life-cycle management, refurbishment, and modernization initiatives.

Paragraph 4 - Provide DTAVS Help Desk Support:

The support provided by Portal Dynamics under this contract includes:

- Logistics Office Automation and Support Services

Project/Contract Name:	U.S. Army Program Executive Office Ground Combat Systems (PEO GCS) eBusiness Life Cycle Management Portal (LCMP) (submitted by Portal Dynamics, Inc.)

- Logistics Systems Network Support
- Logistics Media Learning Center Support

Under this contract, Portal Dynamics performs program management and operational support analysis to develop, automate, and implement procedures and systems for PEO GCS logistics program management and operational functions. These functions are represented as lines of business in the eBusiness Life Cycle Management Portal, and include: program coordination and interface; program performance monitoring; research; administration, business rules, and document support; support analysis; formulation of logistics topics, initiatives, and strategic plans; technical operations; and manpower support.

Other supported functions include:

- Logistics reengineering advertisement, educational, and presentational materials
- Fiscal Management (management and funds tracking procedures)
- Equipment Readiness Posture
- Logistics Integrated Database (LIDB)
- Operational logistical libraries
- Similar system from LOGSA
- Integrated Table of Equipment (ITOE)
- Logistical Support Planning
- Logistic Business Process Reengineering and Functional Process Improvement Support

Under this contract, Portal Dynamics provides Transportation and Supply Support in logistics support planning; inventory and property planning; and logistics systems to permit rapid deployment and management of supplies and equipment.

- Performance and command readiness
- Configured Loads
- Future transformational logistics
- Deployment packages
- Material and property requirements planning, movement, storage and accountability systems
- Logistics strategic planning services
- Supply and Value Chain Management Services
- Asset management and visibility
- Unit Level Logistics Systems

Paragraph 5 - System Instrumentation/Augmentation/Reporting Capabilities:

Under this contract, Portal Dynamics deployed and migrated an enterprise eBusiness portal with Microsoft Office SharePoint Portal Server 2003 and other Microsoft technologies, including Microsoft Windows® SharePoint Services and the Microsoft Office System.

The portal provides enhanced functionality with 70 percent lower investment than typical competing solutions. Benefits include a high adoption rate, minimal retraining costs, secure remote access, streamlined information search, increased team productivity through shared workspaces and advanced document management tools, and a positive return on investment (ROI) in less than one year.

In a recent command-level newsletter, the APEO (Mr. Don Papke) stated: “Recently our PEO GCS eBusiness Portal was recognized as one of the Army/NETCOM’s top four projects involving the integration of Web-based systems into their business process. Due to the success we have realized, our efforts and capabilities are being requested for duplication within other Army and Marine organizations.”

Under this contract, Portal Dynamics designed and implemented Lean Six Sigma Project Tracking for more than 240 LCMC projects, which include participants who directly input, maintain, and report on project information from the following LCMC organizations: HQ AMC, **Anniston Army Depot**, ARDEC, TACOM Acquisition Center, PEO Soldier, USAG M, ILSC, PEO CS&CSS, G1, G2, G3, G5, G6, G8, PEO GCS, RIA, **Red**

Project/Contract Name:	U.S. Army Program Executive Office Ground Combat Systems (PEO GCS) eBusiness Life Cycle Management Portal (LCMP) (submitted by Portal Dynamics, Inc.)

River Army Depot, Sierra Army Depot, TARDEC, Legal, and Chief of Staff and Special Staff.

Portal Dynamics expanded the LCMP to include the PM HBCT Asset Management System, providing the ability to record and send Bradley Field Service Representative (FSR) report data electronically via hand-held PDAs in real time. This data is available through the PEO GCS eBusiness Life Cycle Management Portal, enabling report generation and fleet trend analysis for PM HBCT stakeholders. Information generated by this system includes transmission configuration and birth certificate information at the depots. Value chain management participants include PM HBCT, PM Bradley Team, BAE Systems, General Dynamics Land Systems, L3 Communications, **Red River Army Depot**, and **David Brown Army Depot**. Portal Dynamics recently expanded LCMP capabilities to include a Contract Acquisition Business Process Workflow tool. This tool provides the capability to gather and deliver information in an actionable format and track the information through the life cycle of the work directive.

Problems Encountered and Corrective Actions Taken to Avoid Recurrences:

There have been no significant issues or interruptions in the development, implementation, and support of the eBusiness Life Cycle Management Portal.

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C.1.4 USMC - PM LAV IDE

Project/Contract Name:	**USMC Program Manager – Light Armored Vehicle (PM-LAV) Integrated Digital Environment (IDE) & Life-Cycle Sustainment Web Portal (submitted by Portal Dynamics, Inc.)**		
Name of Contracting Activity:	TACOM - Warren, Directorate of Contracting Warren, MI.		
Contract Number:	DAAE07-02-F-0057 subcontract #: R3-03999 (with Radian)	**Period of Performance:**	Start: 09/09/02 End: 09/08/03
Contract Type:	FFP	[i.e. Firm-Fixed Price, Cost Plus-Award Fee, etc.]	
Total Contract Value:	$965,969.69		
Contracting Officer:	Sue Stoner; 586-574-6359; susan.stoner@us.army.mil Bob Lusardi; 586-574-8338; bob.lusardi@us.army.mil		
Contract Administrator:	Jerry Mailey, Radian; 703-329-9300 X658; jmailey@radianinc.com		
List of Major Subcontractors:	None		

Brief Summary of Work Performed:

This contract established a common Web-based working environment for all Program Manager Light Armored Vehicle (PM LAV) personnel, providing a central Document Management System, integrated Microsoft Office applications, automated common business processes and real-time collaboration tools. Specific tasks included:

- Enhance the current PM LAV IDE with Supply Chain Integration and Maintenance capabilities by integrating information from USMC legacy systems such as MIMMS, SASSY and ATLASII+
- Provide flexible business process workflows that streamline business processes, provide robust reporting capabilities and proactively notify personnel of deadlines
- Provide review, conversion, QA and publishing of hard-copy weapon system documentation into the document management system IDE

PM LAV also faced a significant challenge in conducting Service Life Extension Program (SLEP) of the 750 LAVs consisting of nine variant types. The Marine Corps needed visibility into the configuration of these vehicles to improve readiness rates by improving the supply chain, maintenance, and logistics functions.

To meet these challenges, Portal Dynamics designed and implemented a solution for PM LAV based on the PM Portal™ Integrated Digital Environment (IDE), which provides a central Document Management System using Microsoft SharePoint, seamless integration of Microsoft Outlook applications for at-work and remote access, and six business process workflows: Travel, Training, Tasking, CDRL, Procurement and Leave.

Portal Dynamics also Web-enabled an internal supply and maintenance system that derives its information from several Marine Corps' legacy database systems and is integrated into the PM LAV/OSD IDE.

Relevance to the Paragraphs of the Statement Of Work:

Paragraph 3 - Provide Data Management:

Portal Dynamics developed the PM-LAV Configuration Management System (CMS) application, which tracks CMS and LTI information both on the IDE and in an offline mode down to the PDA. The purpose of the CMS application is to baseline the configuration of the LAVs as they move through Service Life Extension Program (SLEP), a maintenance action that is equivalent to a system upgrade and complex overhaul. The CMS application has been live since February 2004 with utilization by the PM LAV Sustainment Team, Depot personnel, Maintainers, PM Office staff, Delphi Automotive, Rochester Institute of Technology, TMDE, and ESSIbuy.com.

Project/Contract Name:	USMC Program Manager – Light Armored Vehicle (PM-LAV) Integrated Digital Environment (IDE) & Life-Cycle Sustainment Web Portal (submitted by Portal Dynamics, Inc.)

The benefits of the CMS application include:

- Ability to capture and verify the baseline configuration of all PM LAV vehicles during the three-year SLEP program
- PM shop visibility into data and ability to perform trend analysis across the fleet of vehicles
- Operators/Maintainers can capture the CMS information on a wireless hand held without connecting to the Internet
- Ability to interface with PM LAV Class IV/V IETM by providing the latest configuration of the serialized weapon system by Hull number

Paragraph 4 - Provide DTAVS Help Desk Support:

Under this contract, Portal Dynamics provided Logistics Information/Technology Support in the following task areas:

- Logistics Office Automation/Support Services
- Logistics Systems Network Support

Paragraph 5 - System Instrumentation/Augmentation/Reporting Capabilities:

Port Dynamics used best practice technologies and methods to plan, design, provide, manage, operate and maintain the PM Portal™ Integrated Digital Environment (IDE) as the means designed to improve equipment and logistics performance and reduce life cycle costs.

Key features of the PM Portal IDE include:

- Web-based portal providing global access to authorized users via a common internet browser
- Central Indexed Document Management System with links to external document/file repositories
- Microsoft Outlook Functionality arranged by user type (IPTs, functional groups, etc.)
- On-line collaboration tools
- Automated business processes utilizing workflow applications
- Automated forms processing
- Product quality deficiency reporting capabilities
- Engineering change proposal interface
- Supply Chain Integration with USMC legacy systems (MIMMS, SASSY, and ATLAS II+.)
- USMC PM LAV Integrated Digital Environment (IDE) web portal
- Class 4/5 IETMS (Interactive Electronic Technical Manuals)
- Condition-Based Maintenance System (CBM) – (component sensor tracking and fault isolation)
- Weapon System Readiness Reporting (Supply, Maintenance, and vehicle deadline status)
- Web-enabled Vehicle Tracker System integrated with PMLAV IDE and CMS application

Due to the dispersed nature of PM LAV's workforce, the Collaborative Work Portal significantly improved access to and collaboration on PM LAV staff work. PM LAV observed a reduction in missed program due dates, time spent retrieving supporting documentation, and improved staff efficiency.

Integrating the SCOPE system into the PM LAV/OSD IDE provided LAV personnel with near real-time access to supply and maintenance information. Prior to this integration, LAV personnel relied on site visits, e-mail and phone calls on specific issues and weekly, monthly, or quarterly reports. PM LAV personnel are now able to address supply and maintenance issues before they become a problem.

Problems Encountered and Corrective Actions Taken to Avoid Recurrences:

There have been no significant issues or interruptions in the development, implementation, and support of the Integrated Digital Environment (IDE) and Life-Cycle Sustainment Web Portal.